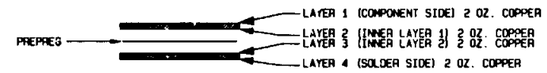
16. LAYER TO LAYER MISREGISTRATION NOT TO EXCEED .005.
15. MARK AREA INDICATED WITH THE DATE CODE, TRACEBILITY CODE AND MANUFACTURER'S CODE FEDERAL SUPPLY CODE FOR MANUFACTURERS) WITH PERMENENT INK (NON CONDUCTIVE) OR IN COPPER ETCH.
14. MIL-P-55110 QUALITY ASSURANCE PROVISIONS APPLY.
13. UNDIMENSIONED HOLES ARE LOCATED ON A .025 GRID.
12. UNLESS OTHERWISE SPECIFIED IN HOLE LEGEND, ALL HOLES ARE PLATED THRU AND SHALL BE THE SPECIFIED DIAMETER AFTER PLATING.
11. THIS DRAWING USED IN CONJUNCTION WITH SCHEMATIC SID46114435.
10. ARTWORK DEPICTED ON THIS DRAWING IS FOR DOCUMENTATION ONLY.
9. ARTWORKS DEPICTED ON THIS DRAWING ARE PHOTO POSITIVES UNLESS OTHERWISE SPECIFIED
8. SOLDER MASK (GREEN) BOTH SIDES.
7. SILKSCREEN WITH WHITE EPOXY INK PER MIL-I-43553, TYPE II (NON CONDUCTIVE).
6. TIN/LEAD PLATE EXTERNAL CONDUCTIVE PATTERNS PER MIL-P-81728.
5. BOARD MATERIAL TO BE EPOXY FIBERGLASS PER MIL-P-13949/4 TYPE GF, WITH EPOXY PREPREG PER MIL-P-13949/12, TYPE GF. COPPER WEIGHT SHALL BE 2 OZ. FOR ALL LAYERS. FINISH LAMINATE MATERIAL THICKNESS SHALL BE .062±.008.
4. FABRICATE PRINTED WIRING BOARD PER MIL-P-55110 WITH ETCHBACK.
3. THIS ITEM CONTAINS NO FRACTURE CRITICAL ELEMENTS.
2. ALL DIMENSIONS ARE IN INCHES.
1. INTERPRET PER JSCM 8500.

NOTES: UNLESS OTHERWISE SPECIFIED



LAYER STACKING
SCALE = NONE

QTY	PART NUMBER	DESCRIPTION	MTRL/REF DES	SPECIFICATION	ITEM
-	SDD46114436-001	PWB, AUXILLARY POWER SUPPLY			-

DIMENSIONAL TOLERANCE UNLESS NOTED OTHERWISE
.0 ± .1 .000 ± .010
.00 ± .03 ANGULAR ± .5 DEG.

NEXT ASSY: SED46114437

SIGNATURES		DATE
DR	CINDY EAVES	5-29-96
ENG	[signature]	2/18/97
CH	[signature]	2/18/97
APP	[signature]	4/2/97
QA	[signature]	4/18/97
MATL	[signature]	[illegible]
STRESS	[signature]	3/21/97
AUTH	[signature]	4/23/97

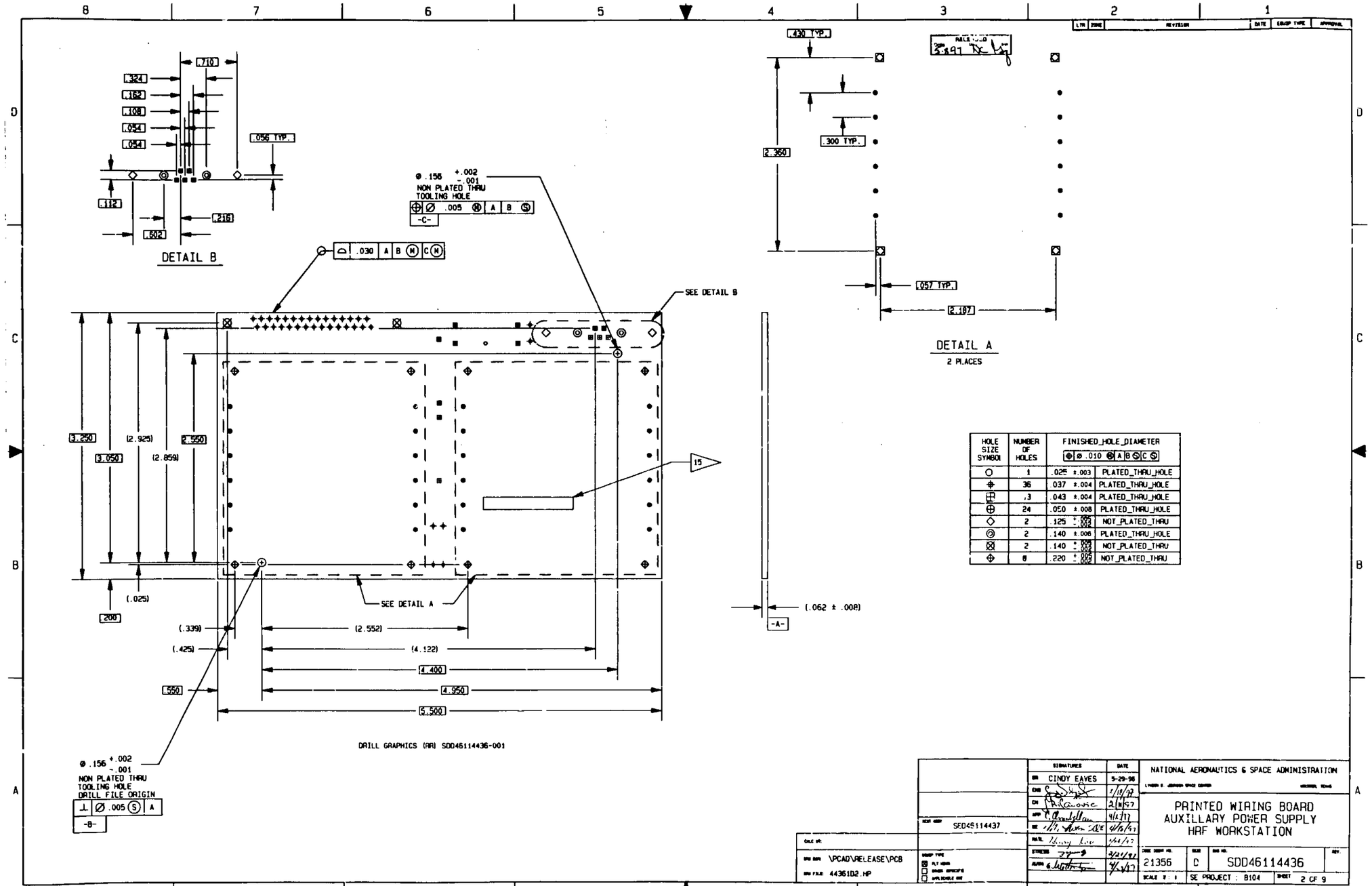
NATIONAL AERONAUTICS & SPACE ADMINISTRATION
LYNDON B. JOHNSON SPACE CENTER HOUSTON, TEXAS

PRINTED WIRING BOARD
AUXILLARY POWER SUPPLY
HRF WORKSTATION

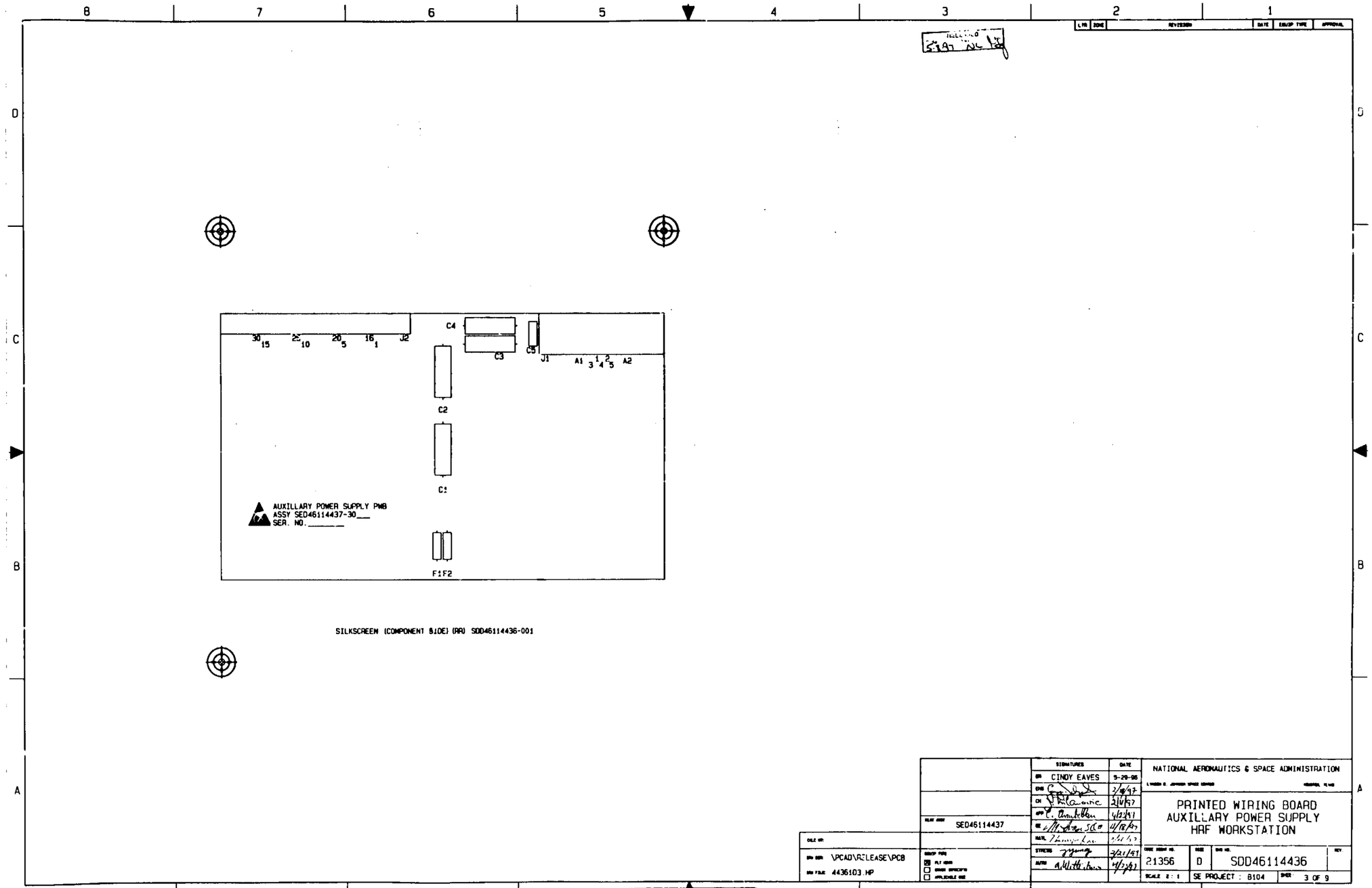
DWG SIZE: 21356 | SIZE: D | DWG NO.: SDD46114436 | REV.:
SCALE 2 : 1 | SE PROJECT : B104 | SHEET 1 OF 9

DWG SIZE: \PCAD\RELEASE\PCB
DWG FILE: 44361D1.HP

414



HOLE SIZE SYMBOL	NUMBER OF HOLES	FINISHED_HOLE_DIAMETER ⊕ Ø .010 Ⓜ A B Ⓢ C Ⓢ	
○	1	.025 ±.003	PLATED_THRU_HOLE
⌖	36	.037 ±.004	PLATED_THRU_HOLE
⊞	13	.043 ±.004	PLATED_THRU_HOLE
⊕	24	.050 ±.008	PLATED_THRU_HOLE
◇	2	.125 +.005 -.002	NOT_PLATED_THRU
◎	2	.140 ±.006	PLATED_THRU_HOLE
⊠	2	.140 +.002 -.002	NOT_PLATED_THRU
⌖	8	.220 +.005 -.002	NOT_PLATED_THRU



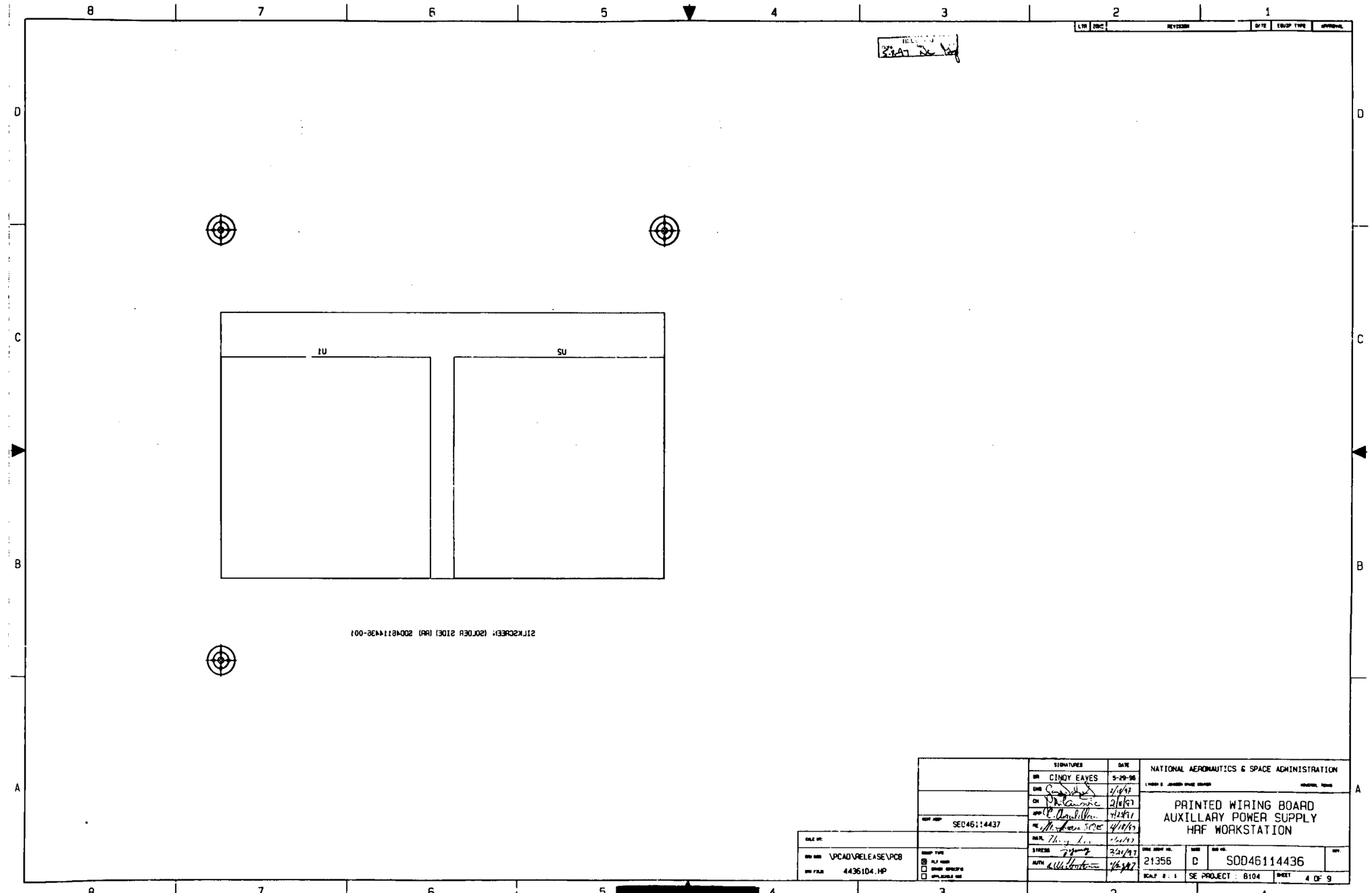
SIGNATURES	DATE	NATIONAL AERONAUTICS & SPACE ADMINISTRATION	
DR CINDY EAVES	5-29-96		
ENG	2/4/97	PRINTED WIRING BOARD AUXILLARY POWER SUPPLY HRF WORKSTATION	
CH	2/4/97		
APP	4/22/97		
QE	4/18/97		
MATL	4/21/97		
STRESS	3/21/97	21356	D SDD46114436
AUTH	4/2/97	SCALE 2 : 1	SE PROJECT : B104 SHEET 3 OF 9

SED46114437

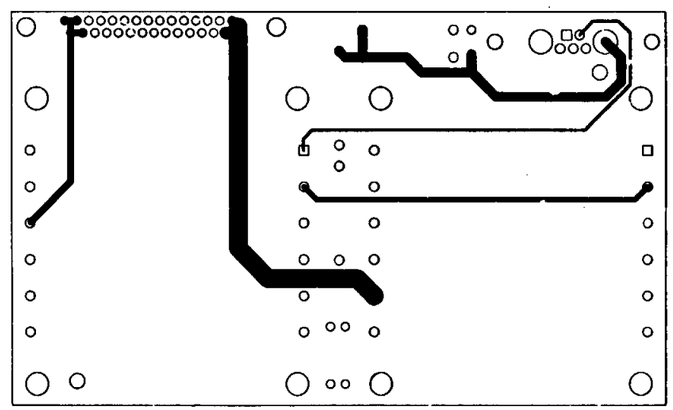
\PCAD\RELEASE\PCB

4436103.HP

416


1U
5U
SILKSCREEN (SOLDER SIDE) (AA) SDD46114436-001
SEC46114437
\PCAD\RELEASE\PCB
4436104.HP
SIGNATURES
DATE
CINDY EAVES
5-29-96
NATIONAL AERONAUTICS & SPACE ADMINISTRATION
PRINTED WIRING BOARD
AUXILLARY POWER SUPPLY
HRF WORKSTATION
21356
C
SDD46114436
SE PROJECT : 8104
4 OF 9

417



LAYER 1 (COMPONENT SIDE) (RR) SDD46114436-001

SIGNATURES	DATE	NATIONAL AERONAUTICS & SPACE ADMINISTRATION	
DR CINDY EAVES	5-29-96	LYNDON B. JOHNSON SPACE CENTER	HOUSTON, TEXAS
ENG	2/18/97	PRINTED WIRING BOARD AUXILLARY POWER SUPPLY HRF WORKSTATION	
CH	2/18/97		
APP	4/22/97		
SE	4/18/97		
MATL			
STRESS	3/21/97	CODE IDENT NO. 21356	SIZE D / DWG NO. SDD46114436 / REV
AUTH	4/23/97	SCALE 2 : 1	SE PROJECT : B104 / SHEET 5 OF 9

NEXT ASSY SED46114437

CALC WT.

DRN DIR \PCAD\RELEASE\PCB

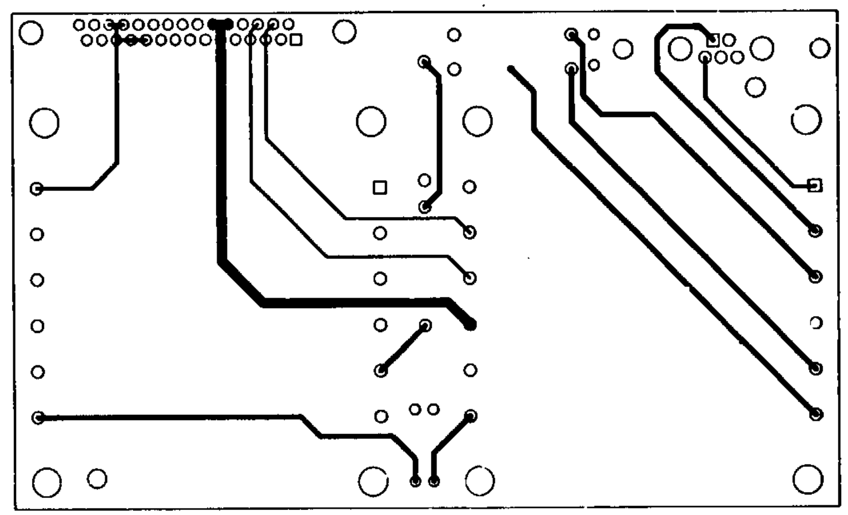
DRN FILE 4436105.HP

DRAWING TYPE: ☒ FLT HDWR ☐ PRIOR SPECIFIC ☐ APPLICABLE SIZE

418

LTR	ZONE	REVISION	DATE	EQUIP TYPE	APPROVAL

RELEASED 3-8-97 NC



LAYER 2 (INNER LAYER 1) (RR) SDD46114436-001

SIGNATURES	DATE	NATIONAL AERONAUTICS & SPACE ADMINISTRATION
DR CINDY EAVES	5-29-96	LYNDON B. JOHNSON SPACE CENTER HOUSTON, TEXAS
ENG	2/17/97	PRINTED WIRING BOARD
CH	2/ /97	AUXILLARY POWER SUPPLY
APP		HRF WORKSTATION
NEXT ASSY SE046114437		

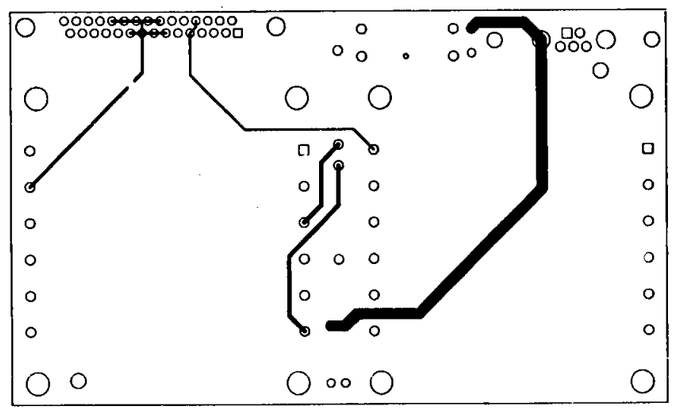
CALC BY:

DRW DIR \PCAD\RELEASE\PCB

DRW FILE 4436106.HP

DRAWING TYPE: ☒ FLT HDWR ☐ OTHER (SPECIFY) ☐ APPLICABLE USE

CODE IDENT NO.	SIZE	DWG NO.	REV
21356	D	SDD46114436	
SCALE 2 : 1	SE PROJECT : B104	SHEET 6 OF 9	



LAYER 3 (INNER LAYER 2) (RR) SDD46114436-001

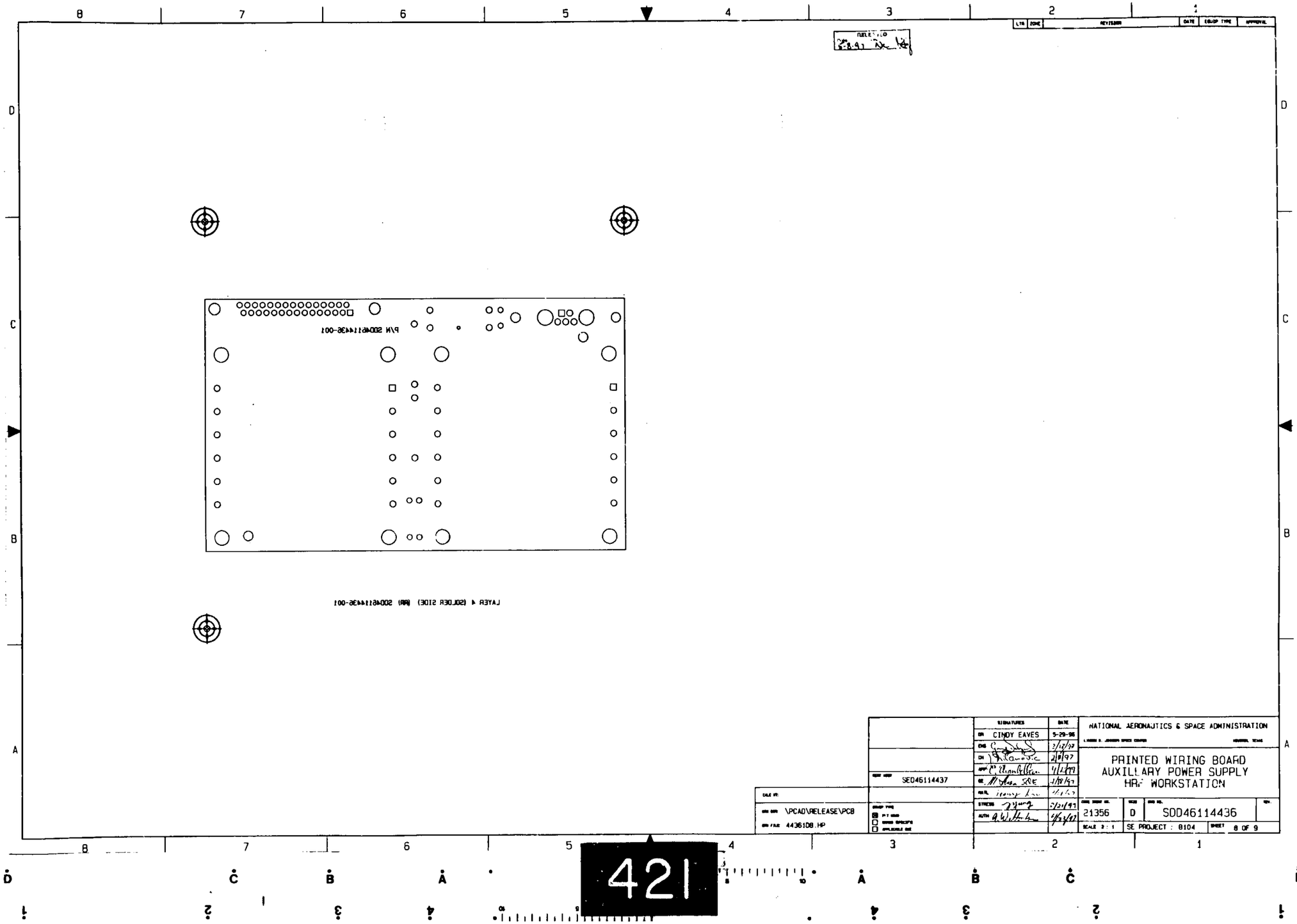
SIGNATURES	DATE	NATIONAL AERONAUTICS & SPACE ADMINISTRATION	
DR CINDY EAVES	5-29-96		
ENG	2/11/97	PRINTED WIRING BOARD AUXILLARY POWER SUPPLY HRF WORKSTATION	
CH	2/8/97		
APP	4/2/97		
QE	4/18/97		
MATL			
STRESS	2/21/97	21356	D SDD46114436
AUTH	4/23/97	SCALE 2 : 1	SE PROJECT : 8104 SHEET 7 OF 9

SED46114437

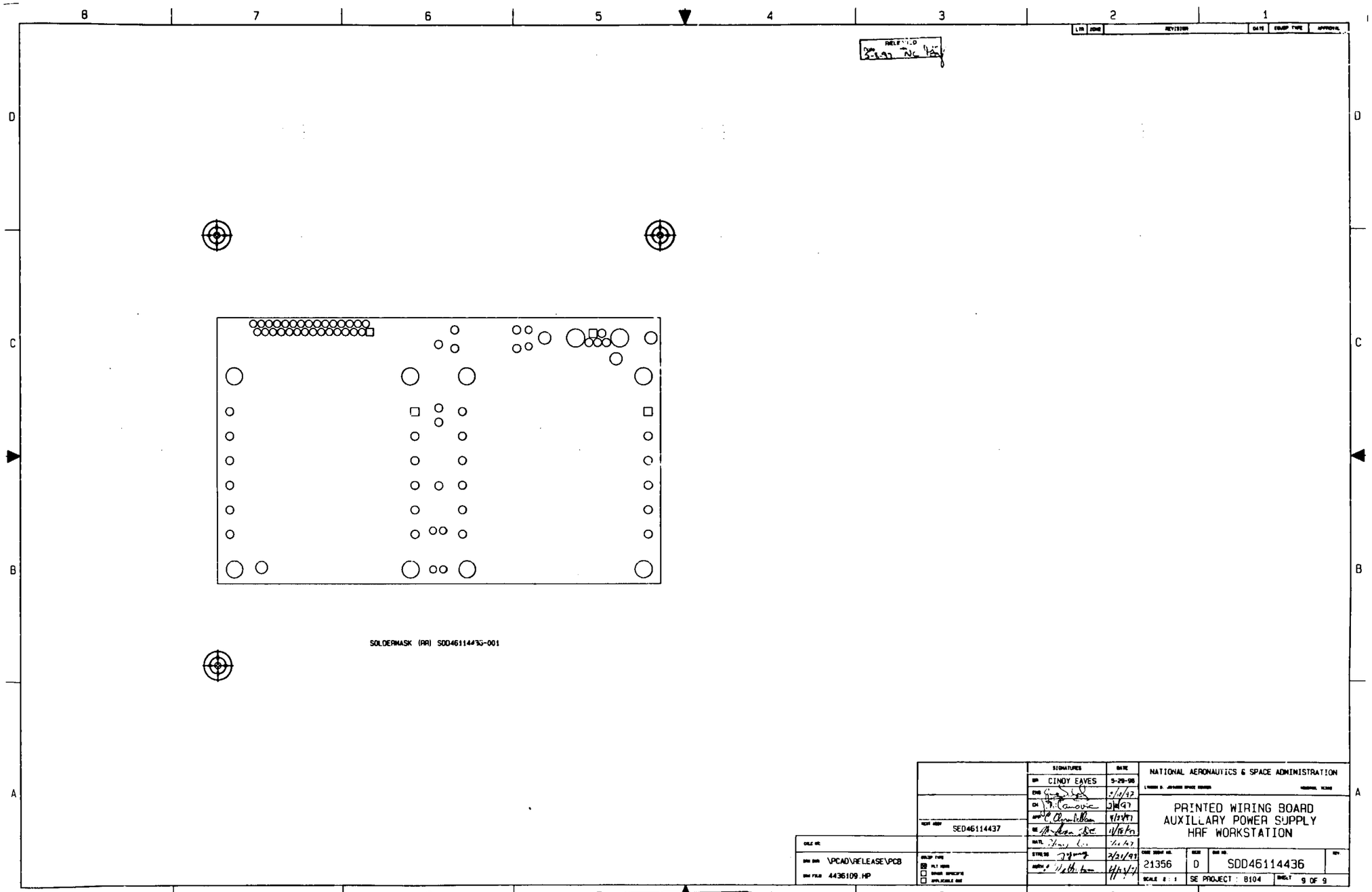
\PCAD\RELEASE\PCB

4436107.HP

420



P/N SDD46114436-001
LAYER 4 (SOLDER SIDE) (RR) SDD46114436-001
SED46114437
\PCAD\RELEASE\PCB
4436108.HP
CINDY EAVES
5-29-96
NATIONAL AERONAUTICS & SPACE ADMINISTRATION
PRINTED WIRING BOARD
AUXILLARY POWER SUPPLY
HRF WORKSTATION
21356
D
SDD46114436
SCALE 2 : 1
SE PROJECT : 8104
SHEET 8 OF 9



SIGNATURES	DATE
DR CINDY EAVES	5-29-96
ENG	2/10/97
CH	2/10/97
APP	4/23/97
SE	11/18/97
MATL	2/10/97
STRESS	2/21/97
AUTH	4/23/97

NATIONAL AERONAUTICS & SPACE ADMINISTRATION

PRINTED WIRING BOARD
AUXILLARY POWER SUPPLY
HRF WORKSTATION

SED46114437

\PCAD\RELEASE\PCB

4436109.HP

21356 | D | SDD46114436

SCALE 2 : 1 | SE PROJECT : B104 | SHEET 9 OF 9

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